

MODEL INDOOR AIR QUALITY ACT

SECTION 1. Short title.

This act may be cited as the "Indoor Air Quality Act."

SECTION 2. Declaration of policy and intent.

The legislature finds and declares:

(1) Scientific studies and building investigations reveal that poor indoor air quality (IAQ) is responsible for occupant complaints and that of these complaints, the majority are associated with poor ventilation.

(2) On the average, people spend at least 90 percent of their time indoors, and, as a result, the population has a significant potential for exposure to indoor air quality problems.

(3) The composition of indoor air may include chemical and biological substances that have been related to illness or discomfort in persons who are exposed to the indoor air.

(4) Energy saving features and aging, poorly maintained heating, ventilating and air conditioning systems in many buildings have substantially reduced the outdoor air exchange or otherwise contributed to increased concentrations of air pollutants in those structures.

(5) Existing state environmental and occupational health programs do not adequately protect the public from exposure to poor indoor air quality that may occur in public areas or office workplaces. 2501012336

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2 (6) Indoor air quality problems are not easily
3 definable nor are specific health effects easily quantifiable.

4 (7) It is in the public interest to reduce exposure
5 to poor indoor air quality by developing a comprehensive
6 program to address the requirements for indoor air quality
7 in public and private buildings, schools, health care
8 facilities, offices and commercial establishments, and to
9 educate the public regarding indoor air quality issues. In
10 so doing, it is in the public interest to pursue an overall,
11 building systems approach to indoor air quality.

12 SECTION 3. Definitions

13 For the purposes of this Act, the following terms mean:

14 (1) "Building," a structure of greater than twenty-
15 five thousand square feet of floor space, of two (2) or more
16 floors, using mechanical ventilation providing outdoor air,
17 recirculated air or a mixture of outdoor and recirculated
18 air, in which two (2) or more persons work, convalesce or
19 otherwise occupy for a period of one (1) hour or more during
20 any twenty-four (24) hour period. "Building" includes public
21 buildings and non-industrial, non-residential workplaces;

22 (2) "Building owner," any individual, partnership,
23 corporation, state, county, city, town or village that owns
24 the freehold of a premises or any lesser estate therein, a
25 mortgagee or vendee in possession, a contract vendee, assignee
26 of rents, receiver, executor, trustee, lessee or any other

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1 person firm or corporation in control of a building containing
2 commercial establishments or public places covered by this
3 act, or the agent of such person(s) (e.g. building manager
4 or facility manager or other person who has control of the
5 workplace);

10 (4) "Director," director of the Office of Indoor Air
11 Quality of the Department;

14 (6) "HVAC system," the collective components of the
15 heating, ventilation and air conditioning system for any
16 indoor space;

17 (7) "Indoor," enclosed portions of buildings;

18 (8) "IAQ effect," any complaint that involves an
19 identifiable symptom such as headache, nausea, respiratory
20 illness, skin and/or eye irritation, "multiple chemical
21 sensitivity," fatigue, dizziness, etc.;

22 (9) "Proprietor," the owner, manager, operator,
23 employer or other person, corporation, association or
24 partnership in charge of a workplace;

25 (10) "Public area," any enclosed indoor area used
26 by the general public, including, but not limited to,

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1 educational facilities, health facilities, libraries, hotels,
2 motels, apartment buildings, meeting rooms, auditoriums,
3 arenas, theaters, museums, restaurants, and concert halls;

4 (11) "Workplace," that portion of any enclosed,
5 indoor area in which members of the general public are not
6 permitted.

7 SECTION 4. Office of Indoor Air Quality.

8 (a) There is hereby established within the Department, an
9 Office of Indoor Air Quality. It shall be the duty of such
10 office to:

11 (1) Administer a comprehensive, well-defined and
12 coordinated program designed to reduce the seriousness and
13 extent of indoor air quality problems, and the technological
14 and other methods of reducing human exposure to poor indoor
15 air quality;

16 (2) Establish a process whereby the existing
17 authorities will be directed and focused to assure the full
18 and effective application of these authorities to reduce
19 human exposure to poor indoor air quality where appropriate;
20 and

21 (3) Authorize activities to assure the general
22 coordination of indoor air quality-related activity, to
23 provide for investigations or evaluations of indoor air
24 quality in specific buildings, to provide training,

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2 education, information, and technical assistance to the public
3 and private sector, and for other purposes.

4 SECTION 5. Director of Indoor Air Quality.

5 The Governor with the advice and consent of the
6 Legislature shall appoint a Director of Indoor Air Quality.
7 The Department shall provide such clerical, technical and
8 professional assistance as shall be necessary to effectuate
9 the purposes of this act and may use any federal or nonprofit
10 funds available to aid in the administration of this act.

11 SECTION 6. Public information program.

12 Subject to available funds, the Director may establish a
13 public information program to educate the public on indoor
14 air quality, and on effective, practical methods for
15 preventing, detecting and correcting the causes of poor indoor
16 air quality.

17 SECTION 7. Building investigations and scientific studies.

18 Subject to available funds, the Director may conduct
19 building investigations and scientific studies to analyze
20 and quantify the extent of poor indoor air quality in selected
21 buildings with indoor air quality problems. Building
22 investigations shall be conducted in a manner that does not
23 compete with the business of private contractors. Comparative
24 scientific studies may be conducted to look further for the
25 causes of indoor air quality problems, especially where

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1 national information on significant potential problems is
2 lacking.
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4 SECTION 8. Public certification program for compliance.
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6 (a) The Department shall establish by rule a public
7 certification program for workplaces, buildings, or public
8 areas that consistently meet the indoor air quality
9 requirements of this act. Any workplace, building or public
10 area that qualifies for such recognition may display a notice
11 indicating that the building meets or exceeds the requirements
12 of the state's indoor air quality statute.
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14 (b) To qualify for certification under this section, a
15 workplace, building or public area shall:
16

17 (1) Comply with all applicable provisions of this
18 act; and
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20 (2) Demonstrate a consistent pattern of compliance
21 in meeting all indoor air quality standards and other
22 requirements of this act.
23

24 (c) The Department by rule may establish a fee to be
25 submitted by the owner or responsible party of a workplace,
26 building or public area who requests certification under
this section. The fee shall be an amount sufficient to pay
the Department's costs in carrying out the provisions of
this section.
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28 (d) It is a defense in a civil action brought for damages
29 for injury caused by the alleged harmful effects of poor
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1 indoor air quality that the building owner, employer,
2 proprietor or qualified HVAC system operator complied in
3 good faith, without negligence or misconduct, with the air
4 quality standards established by the Department, and the
5 ventilation, testing and maintenance requirements adopted
6 under this act.

7 SECTION 9. HVAC systems.

8 (a) The recognized standards of the American Society of
9 Heating, Refrigerating and Air Conditioning Engineers, Inc.,
10 known as ASHRAE 55-1981 (Thermal Environmental Conditions
11 for Human Occupancy) and ASHRAE 62-1989 (Ventilation for
12 Acceptable Indoor Air Quality), are hereby adopted as
13 standards for evaluating indoor air quality in all buildings
14 or portions of buildings subject to this act.

15 (b) Every building owner, employer or proprietor shall
16 use all reasonable efforts to maintain and operate HVAC
17 systems during all work shifts to provide adequate ventilation
18 in compliance with the ASHRAE standards adopted in part (a)
19 of this subsection. Relative humidity should be maintained
20 below 60% in any season to prevent and reduce the growth of
21 biological contaminants.

22 (c) Maintenance and Performance Testing.

23 (1) Every building owner, employer or proprietor
24 should identify a qualified person(s) (e.g. contractor,
25 company, agency, or department) to be responsible for the

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1 operation and maintenance of the HVAC system and to conduct
2 periodic performance testing. The qualified person(s)
3 identified for these tasks should be knowledgeable in the
4 principles of HVAC system operation and maintenance, HVAC
5 testing procedures, the requirements of the ASHRAE standards
6 and the specific HVAC system serving the building or office.

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or proprietors should maintain adequate documentation of such testing.

SECTION 10. Evaluation of Indoor Air Quality Problems.

(a) Building owners, employers and proprietors shall adopt procedures to document and address indoor air quality problems or complaints from employees or other building occupants. A written outline of these procedures shall be available to employees, occupants and the Department.

(b) Following the receipt of complaints about indoor air quality by three or more employees or occupants, the building owner, employer, proprietor or the person(s) responsible for the maintenance and operation of the building and/or HVAC system, shall evaluate the indoor air problem and take action, if necessary. Such evaluation and action may include an indoor air quality assessment to identify the nature of the indoor air complaints, HVAC system inspection, maintenance, adjustments, cleaning, or other actions deemed appropriate to resolve the problem.

(c) If the condition persists or if the building owner, employer or proprietor fails to respond to a complaint filed by three or more employees or occupants, an employee or occupant may request further action by notifying the Department in writing. No employee shall be penalized by an employer in any way as a result of such employee's filing of

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1 a complaint or otherwise providing notice to the Department
2 in regard to indoor air quality and ventilation standards.
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4 (d) Where the Department, upon investigation, has reason
5 to believe that a building or a portion of a building does
6 not provide for adequate indoor air quality when measured
7 against the standards adopted in this act, then the
8 Department may require the building owner, employer or
9 proprietor to perform a comprehensive ventilation and
10 temperature evaluation in accordance with those standards.
11 The Department may additionally require the building owner,
12 employer or proprietor to obtain and furnish to the
13 Department, at the building owner's, employer's or
14 proprietor's expense, a report from a licensed engineer or
15 registered architect or certified industrial hygienist or
16 other person with similar qualifications, education, or
17 experience who can demonstrate the ability to perform indoor
18 air quality evaluations. The report must outline appropriate
19 corrective measures to the building or portions of the
20 building under investigation. Where retrofit is found to be

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2 time of enactment of this act, to bring into conformity with
3 these adopted standards. These standards are adopted in
4 order to provide a nationally recognized objective
5 measurement tool for the evaluation and retrofit of buildings
6 or portions of buildings which exhibit indoor air quality
7 deficiencies.

8 SECTION 11. Controls for specific air pollutant sources.

9 (a) Renovation work, new construction, cleaning operations
10 and pesticide applications that result in the diffusion of
11 dust, stone and other small particles, toxic gases or other
12 harmful substances in quantities hazardous to health shall
13 be safeguarded by means of local ventilation or other
14 protective devices to insure the safety of employees and the
15 public. Renovation areas in occupied buildings shall be
16 isolated and dust and debris shall be confined to the
17 renovation or construction area. Following completion of
18 construction or renovation work, the building owner, employer
19 or proprietor shall ensure that appropriate measures are
20 taken to allow materials to offgas prior to occupancy.

21 (b) Before use of paints, adhesives, sealants, solvents,
22 or installation of insulation, particle board, plywood, floor
23 coverings, carpet backing, textiles or other materials in
24 the course of renovation or construction, the building owner,
25 employer, proprietor or hired contractor shall check product
26 labels or seek and obtain information from the manufacturers

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1 of those products on whether or not they contain volatile
2 organic compounds such as solvents, formaldehyde or
3 isocyanates that could be emitted during regular use. This
4 information shall be used to select products and to determine
5 necessary measures, if any, to be taken to comply with this
6 section.

7 (c) Direct entry or infiltration of odors, fumes, vehicle
8 exhaust, and other air pollutants through outdoor air intakes;
9 intentional openings in the building shell such as loading
10 docks, stairwells, elevator shafts or other openings; and
11 unintentional openings in the building shell such as around
12 doors, windows, utility entrances, cracks and holes; shall
13 be prevented by engineering controls or architectural design.

14 (d) Re-entrainment into the building of pollutants from
15 building exhausts, plumbing vents, drain piping, etc. shall
16 be prevented by engineering controls.

17 (e) The building owner, employer or proprietor shall
18 ensure that the operation and maintenance of equipment,
19 activities, and processes that have the potential to produce
20 indoor air pollutants are being operated and maintained
21 properly.

22 (f) The building owner, employer or proprietor, as
23 appropriate, shall control biological contamination by
24 promptly replacing or properly cleaning porous materials
25 that have been moisture damaged. In addition, visible moss,

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2 mold or algae shall not be growing in ductwork, humidifiers
3 or other HVAC system components.
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5 SECTION 12. Formal complaint procedure.
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7 (a) Building-related and indoor air quality complaints
8 may be reported to the Department as follows:
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10 (1) The employee or occupant shall notify the
11 Department in writing of the grounds for the complaint. All
12 relevant documents shall accompany the complaint.
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14 (2) Within five working days from the receipt of the
15 complaint, the Department shall notify the building owner,
16 employer or proprietor that a complaint has been filed.
17 Upon the request of the employee or occupant, the
18 complainant's name shall be withheld from the notice to the
19 building owner, employer or proprietor.
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21 (3) The Department shall investigate and determine
22 the nature and extent of the problem. The investigation
23 shall be conducted in accordance with the standards adopted
24 in this act.
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26 (i) If the extent of the problem indicates, the
27 Department shall determine and order the building owner,
28 employer or proprietor to have a qualified expert investigate
29 the alleged indoor air quality problem. If the study is
30 contracted for by the building owner, employer or proprietor,
31 it shall report the results in writing to the Department
32 within five working days of receipt.
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SECTION 13. Appeals of Department decisions.

25 (d) The application for appeal shall be in writing,
26 briefly setting forth the appellant's position. Such

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1 application shall state the name and address of the appellant,
2 the address of the building or site in question and shall
3 reference the specific sections of the rules in question,
4 and the extent and nature of the appellant's reliance on
5 them. The appellant may append to his or her written
6 application any data or information that is deemed
7 appropriate to the cause.

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9 SECTION 14. Promulgation of regulations.

10 The Department shall promulgate regulations necessary to
11 carry out the provisions of this act.

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13 SECTION 15. Emergency powers.

14 The director, upon determination that a serious indoor air
15 pollution condition exists in a workplace, building, or public
16 area with significant IAQ effects impacting upon at least
17 half of the occupants thereof may order any such site to be
18 closed by way of the issuance of a cease and desist order
19 enforceable in the appropriate courts of the state.

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21 SECTION 16. Penalties.

22 (a) Any building owner, employer or proprietor who
23 violates the requirements of this act may be assessed a civil
penalty of not more than \$5,000. In assessing such a civil
penalty, the director shall consider:

24 (1) The number of persons exposed to the violation;
25 (2) The likely severity of any injuries resulting
26 from such violation;

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(3) The probability that the violation could result in injury or illness;

(4) Previous violations of the building owner,
employer or proprietor;

(5) The good faith of the building owner, employer or proprietor in dealing with the violation; and

(6) The effect of the penalty on the building owner's, employer's or proprietor's ability to stay in business.

(b) The director may apply a multiplier of not greater than ten to the penalty determined under subsection (a) under the following circumstances:

(1) Where violations involve fatalities or serious physical injuries;

(2) There is an excessive history or pattern of violations of the act which cause or are likely to cause death or serious physical injury; or

(3) The violations involve an extreme degree of gravity or other unique aggravating circumstance.

(c) Minor violations of this act may be censured by a suitable written notice or warning.

SECTION 17. Severability.

If any provision, clause or paragraph of this act shall be held invalid by a court of competent jurisdiction, such validity shall not affect the other provisions of the act.

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2 SECTION 18. Preemption.
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4 This act preempts a county, city, town or other
5 governmental unit from adopting any ordinance concerning
6 indoor air quality.
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8 SECTION 19. Effective date.
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10 This act shall take effect one year after it shall have
11 become law.
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